What is claimed is:

1. A humanized antibody directed against an epitope on glatiramer acetate (Copolymer 1).

2. The antibody of claim 1, wherein the antibody is not cross-reactive with myelin basic protein (MBP).

3. The antibody of claim 1, wherein the antibody consists essentially of IgG1.

4. The antibody of claim 1, wherein the antibody does not react with mature oligodendrocytes.

5. The antibody of claim 1, wherein the antibody cross-reacts with spinal cord homogenate (SCH).

6. The antibody of claim 1, wherein the antibody primarily reacts with cells exhibiting a macrophage or microglial phenotype.

7. The antibody of claim 1, wherein the antibody is a monoclonal antibody.

8. The antibody of claim 1, wherein the antibody is a polyclonal antibody.

9. A F_{ab} fragment that binds to an epitope on glatiramer acetate (Copolymer 1).

10. A pharmaceutical composition comprising an antibody directed against an epitope on glatiramer acetate (Copolymer 1) in an amount effective to treat a disease associated with demyelination of central nervous system axons and a pharmaceutically acceptable carrier.

11. The pharmaceutical composition of claim 10, wherein the antibody is a humanized antibody.

12. The pharmaceutical composition of claim 10, wherein the antibody is not cross-reactive with myelin basic protein (MBP).

13. The pharmaceutical composition of claim 10, wherein the antibody consists essentially of IgG1.

14. The pharmaceutical composition of claim 10, wherein the antibody does not react with mature oligodendrocytes.

15. The pharmaceutical composition of claim 10, wherein the antibody cross-reacts with spinal cord homogenate (SCH).

16. The pharmaceutical composition of claim 10, wherein the antibody primarily reacts with cells exhibiting a macrophage or microglial phenotype.

17. The pharmaceutical composition of claim 10, wherein the antibody is a monoclonal antibody.

18. The pharmaceutical composition of claim 10, wherein the antibody is a polyclonal antibody.

19. A method of stimulating remyelination of central nervous system axons comprising contacting the axons with an antibody directed against an epitope on glatiramer acetate (Copolymer 1) in an amount effective to stimulate remyelination of central nervous system axons.

20. The method of claim 19, wherein the antibody is a humanized antibody.

21. The method of claim 19, wherein the antibody is not cross-reactive with myelin basic protein (MBP).

22. The method of claim 19, wherein the antibody consists essentially of IgG1.

23. The method of claim 19, wherein the antibody does not react with mature oligodendrocytes.

24. The method of claim 19, wherein the antibody cross-reacts with spinal cord homogenate (SCH).

25. The method of claim 19, wherein the antibody primarily reacts with cells exhibiting a macrophage or microglial phenotype.

26. The method of claim 19, wherein the antibody is a monoclonal antibody.

27. The method of claim 19, wherein the antibody is a polyclonal antibody.

28. A method of treating a subject suffering from a disease associated with demyelination of central nervous system axons comprising administering to the subject an effective amount of an antibody directed against an epitope on glatiramer acetate (Copolymer 1) in an amount effective to treat the disease associated with demyelination of central nervous system axons.

29. The method of claim 28, wherein the antibody is a humanized antibody.

30. The method of claim 28, wherein the antibody is not

cross-reactive with myelin basic protein (MBP).

31. The method of claim 28, wherein the antibody consists essentially of IgG1.

32. The method of claim 28, wherein the antibody does not react with mature oligodendrocytes.

33. The method of claim 28, wherein the antibody cross-reacts with spinal cord homogenate (SCH).

34. The method of claim 28, wherein the antibody primarily reacts with cells exhibiting a macrophage or microglial phenotype.

35. The method of claim 28, wherein the antibody primarily reacts with cells exhibiting a macrophage or microglial phenotype.

36. The method of claim 28, wherein the antibody is a monoclonal antibody.

37. The method of claim 28, wherein the antibody is a polyclonal antibody.

38. The method of claim 28, wherein the disease associated with demyelination of central nervous system axons is selected from the group consisting of: multiple sclerosis, acute disseminated encephalomyelitis, transverse myelitis, demyelinating genetic diseases, spinal cord injury, virus-induced demyelination, Progressive Multifocal Leucoencephalopathy, Human Lymphotrophic T-cell Virus I (HTLVI)-associated myelopathy, and nutritional metabolic disorders.

39. The method of claim 38, wherein the nutritional metabolic disorder is vitamin B_{12} deficiency.

40. The method of claim 38, wherein the nutritional metabolic disorder is central pontine myelinolysis.

41. The method of claim 28, wherein the effective amount is an amount from 0.5 mg to 400 mg.

42. The method of claim 41, wherein the effective amount is an amount from 0.5 mg to 250 mg.

43. A method of stimulating remyelination of central nervous system axons comprising contacting the axons with glatiramer acetate (Copolymer 1) in an amount effective to stimulate remyelination of central nervous system axons.

44. A method of treating a subject suffering from a disease associated with demyelination of central nervous system axons comprising administering to the subject glatiramer acetate (Copolymer 1) in an amount effective to treat the disease associated with demyelination of central nervous system axons, wherein the disease associated with demyelination of central nervous system axons is selected from the group consisting of: acute disseminated encephalomyelitis, transverse myelitis, demyelinating genetic diseases, spinal cord injury, virus-induced demyelination, Progressive Multifocal Leucoencephalopathy, Human Lymphotrophic T-cell Virus I (HTLVI)-associated myelopathy, and nutritional metabolic disorders.

45. A method of stimulating proliferation of lymphocytes comprising contacting the lymphocytes with an antibody

directed against an epitope on glatiramer acetate (Copolymer 1) in an amount effective to stimulate lymphocyte proliferation.

46. The method of claim 45, wherein the antibody is a humanized antibody.

47. The method of claim 45, wherein the antibody is not cross-reactive with myelin basic protein (MBP).

48. The method of claim 45, wherein the antibody consists essentially of IgG1.

49. The method of claim 45, wherein the antibody does not react with mature oligodendrocytes.

50. The method of claim 45, wherein the antibody cross-reacts with spinal cord homogenate (SCH).

51. The method of claim 45, wherein the antibody primarily reacts with cells exhibiting a macrophage or microglial phenotype.

52. The method of claim 45, wherein the antibody is a monoclonal antibody.

53. The method of claim 45, wherein the antibody is a polyclonal antibody.